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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,156	12/05/2001	John G. Sotos	021262-000110US	5725
20350 7590 10/18/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER ROBERTSON, DAVID	
			ART UNIT 3623	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/007,156	<b>Applicant(s)</b> SOTOS, JOHN G.	
	<b>Examiner</b> Dave Robertson	<b>Art Unit</b> 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 and 21-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is a Final office action in reply to Applicant's response of 7/19/2007. Claims 1-18 and 21-42 are pending.

#### ***Response to Amendment***

2. Applicant amends independent claims 1, 30, and 39 to further recite displaying expertise and reference to a geographic area associated with entities, and claims 1, 30, 34, and 39 are broadened to include finding expertise not limited to expertise in a health care field. Applicant adds claims 40-42; canceling claims 19 and 20.

#### ***Response to Arguments***

3. Applicant's arguments with respect to previously rejected claims 1-39 have been considered but are moot in view of the new ground(s) of rejection over claims 1-18 and 21-42.

#### ***Claim Objections***

4. Claims 40 are objected to because of the following informalities:

Claim 1 has a typo at *display a reference...where the entities are with[in] the geographic area*.

Claim 40 has a repeat phrase at: *calculating a score for each of one or more groups based on the [on the]*.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-5, 10-18, 21-29, 30-33, 37, 39 and 40 are rejected under 35

U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Steps critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976):

Claims 1, 30, 37 and 39 recite *determining entities affiliated with relevant documents, ... at least one of the entities including an institution or a geographic area*. The original disclosure, however, describes only a process which includes an essential step of first determining the author of the relevant documents, the affiliated institutions, and then determining the geographic area from the address of the author or from the institution affiliated with the author (see Figure 3 Step 262 and the Specification from page 7 line 3). Lacking such a step, a reading of the *determining* step of claim 1 would imply that *a geographic area has expertise in one or more subject areas*.

Clearly it is authors and institutions, as a collective of authors or as "institutional knowledge," who have expertise in a subject area, the authors or institutions which may be associated with a geographic area due to their physical being or structures.

Geographic areas do not have expertise in a subject. For illustration of this point, in employing the invention and arriving at a particular geographic area one would not

expect to find expertise in a subject except by also (necessarily) finding authors or an institution within that geographic area having the sought after expertise.

Claims 6-9, by comparison, are not rejected as the claims recite a step of *determining an author* of the relevant documents and from what institution the documents emanated, from which can be inferred that *expertise of a geographic area* derives from expertise of *authors* or *institutions* associated with a geographic area, a step expressly disclosed in the specification of the present invention.

Appropriate amendment or clarification is required.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattox et al ("Enterprise expert and knowledge discovery", 8<sup>th</sup> International Conference on Human-Computer Engineering, 1999, herein "Mattox") in view of Streeter and Lochbaum ("An Expert/Expert-Locating System Based on Automatic Representation of Semantic Structures," Bellcore, 1988) and further in view of Lauffer (US Pat. 6,223,165 filed March, 1999).

Mattox et al disclose development of an expertise locator system Expert Finder, developed and implemented at Mitre Corp (see Mattox in "The Edge", June, 1998, page

4). The system Expert Finder mines a document database for documents matching subject keywords and scores the expertise of the persons associated with the documents according to the matching and other factors, then ranking and displaying the expertise and the location of the persons deemed top "experts" in the subject area.

Streeter and Lochbaum disclose an automated system developed at Bellcore in 1988, the Expert/Expert Locator or "EEL" system, in which documents are selected, matched, and scored based on textual/semantic analysis, and from the documents, determines an *organization* associated with the expertise indicated by the documents (page 347 from "Description of the Expert/Expert-Locator").

Lauffer discloses a web-based automated expert locator system, scoring web documents for relevance to expertise in a subject area and display expertise including displaying scores and rankings of expert sources by geographic area.

Specifically, with respect to the claims of the instant application:

Claim 1

Mattox teaches querying a database for documents relevant to a subject (see pages 2-3); calculating a first score for each relevant document (page 5, top: determining a document score based on keyword search and proximity operators); determining entities affiliated with each relevant document, each of the entities associated with expertise in the one or more subject areas (page 3, top: the author of the documents is determined from the individual staff document folders); calculating a second score for each entity based on the one or more first scores of the relevant documents affiliated with the entity (page 4, "evidence" is combined into a single score

for that person (author)); displaying expertise associated with the respective entities, the expertise based on the respective second scores of the entities (page 2, Expert Finder user interface displays ranked experts, with expert information, and relevant publications indicating expertise in the subject area); and displaying a reference to a geographic area, where the entities are within the geographic area (page 2, Expert Finder user interface displays the expert with “room number”, with reference to a geographic area, the location of the building at Mitre Corp within which the listed experts work); however, Mattox does not expressly teach *determining entities affiliated with each relevant document, ...the entities including an institution or a geographic area, and displaying a reference to a geographic area where the entities are within the geographic area.*

Streeter and Lochbaum teach pairing requests for technical information with appropriate technical organizations (see Abstract), finding and ranking expertise of *organizations* by scoring documents associated with each organization (see Abstract), including documents containing the annual write-ups of each groups work plans and technical memoranda to determine the groups’ expertise, and returning the organizations best matching the user’s subject area request (see from page 347, sections 3.1.1 to 3.3.5). Streeter and Lochbaum recognize that organizational expertise is defined by the knowledge of the persons within an organization and that it is difficult for anyone to know in detail the expertise of another organization (see page 345, right column, 5<sup>th</sup> paragraph). Determining expertise from searching and scoring documents

Art Unit: 3623

of an organization applies equally well to *institutions* because an institution is a form of organization.

It would have been obvious to one of ordinary skill in the art at the time of invention to *determine entities affiliated with each relevant document, ...the entities including an institution*, as this would have determined the expertise available at the organizational level based on the documents produced at the organizational level, the expertise indicated by the matching of documents to the subject area of interest. Doing so would have identified the best institutional source of information for recommendation to users requiring information in a subject area, the ranking being determined by scores of actual documents produced by the recommended organizations, for the primary benefit of users outside of the organization to locate expertise by groups of experts not necessary well-known to the user.

Lauffer discloses a web-based, automated expert locator system which includes the scoring of documents on the web for relevance to expertise in a subject area, and *displaying scores and rankings of expertise by geographic area* (see column 6 from line 30 to end of column 7). Lauffer also teaches displaying expertise and the scoring and ranking of the expertise by the geographic area for a user to locate nearby expertise. That Mattox expressly teaches locating experts by physical location (see Figure 1: expert information includes Room number and Department), and further, that Streeter and Lochbaum teach locating experts by organization, including extracting organizational titles from documents and looking up the mailing address of each organization in an online company telephone directory (see page 347, right column,



Section 3.1.5), it would have been obvious to one of ordinary skill at the time of invention to extend Mattox' Expert Finder to *display a reference to a geographic area where the entities are within the geographic area*. Displaying a reference to a geographic area where the entities are within the geographic area would have further aided the user in determining their own proximity to experts in the subject area sought.

Claim 2

Mattox teaches displaying a ranking of expertise of the entities to a user (page 2, Figure 1: showing a ranked list of experts).

Claims 3 and 4

Mattox teaches displaying a ranking of expertise of the entities to a user (page 2, Figure 1: showing a ranked list of experts); however Mattox does not expressly teach *graphically depicting levels of expertise* (claim 3), or *numerically depicting levels of expertise*.

Lauffer expressly discloses *graphically* and *numerically* displaying scores and rankings of expertise by geographic area (see column 6 from line 30 to end of column 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to *graphically* or *numerically depict levels of expertise* as this would have as an aid to the user in more efficiently determining the relative strengths of expertise of the various experts by the expert locator system.

Claim 5

Mattox does not expressly teach *calculating a third score for each of a plurality of geographic areas based on the respective second scores of entities within the each of*

*the plurality of geographic area; and displaying expertise associated with each of the plurality of geographic areas to the user, based on the respective third scores of the plurality of geographic areas.*

Lauffer, as in claims 3 and 4 above, expressly discloses displaying scores and rankings of expertise by geographic area (see column 6 from line 30 to end of column 7) for a user to locate nearby expertise. It would have been obvious to one of ordinary skill in the art at the time of the invention that to graphically or numerically depict levels of expertise associated with a geographic area one would necessarily have scored (as a "third score") the geographic area prior to the ranking, as this would have been necessary to displaying scores and rankings of expertise to aid the user in more efficiently determining the relative strengths of expertise of the nearby experts in the subject area sought by the user.

#### Claims 6-9

Mattox teaches determining an author of a document (see page 2, section "Expert Finder": system determines authors of a document at least by the employee folder in which employees publish to the personal folder); however, Mattox does not expressly teach *determining from what one or more institutions the document emanated* (claim 6), the *determining...the institution...including examining the address of the author* (claim 7) where the *address is a mailing address* (claim 8) or *an email address* (claim 9).

As in claim 1 above, Mattox expressly teaches identifying experts by name and determining a room number and department location for the expert, and Streeter and

Art Unit: 3623

Lochbaum teach finding and ranking expertise of organizations by scoring documents associated with each organization including extracting organizational titles from documents and looking up the mailing address of each organization in an online company telephone directory (see page 347, right column, Section 3.1.5).

It would have been obvious to one of ordinary skill at the time of invention to *determine from what one or more institutions (organizations as in Streeter and Lochbaum) the document emanated including examining the address of the author where the address is a mailing address or an email address*, as this would have provided the user contact information once having located the experts sought, thereby encouraging and enabling the user to efficiently contact experts to obtain the advice on the subject area sought.

Claims 10, 11 and 12 are dependent on the method of claim 5, and further include the *displaying a ranking of expertise of each of the geographic areas based on the third scores of each of the geographic areas*. As in claim 5 above, and additionally for the reasons given above for the corresponding claim elements of claims 2-4 wherein the *displaying the ranking* was for entities, claims 10-12 are similarly rejected.

Claims 13 and 18

Mattox expressly teaches *wherein the first score is based on a type of the document* (see page 3: document types include technical papers, resumes, home pages, with at least type "resume" given additional weight), and wherein the first score is based on the number of relevant documents (page 3, end of 2<sup>nd</sup> paragraph).

Claims 14-17

Mattox teaches claim 13 as above wherein the first score is based on a type of the document; however, Mattox does not expressly teach wherein the first score is based on whether the document *is a review* (claim 14); on the *length of the document* (claim 15); on the *date of publication* (claim 16); or the *impact of journal* (claim 17).

Official Notice is taken that it is old and well known to judge the authority of the expertise contained in a document by either of its begin a review; by the length of the document; by the date of publication; or the impact of the journal. For example, a recently published, lengthy review of scientific papers in a subject area published in a peer-reviewed scholarly journal would be known to be of greater authority than an older, one page abstract of recent developments in a popular technology newsletter. It would have been obvious to one of ordinary skill in the art to score such documents based on it being a review, on its length, on the impact of the journal, and date of publication, as the scores based on these would more accurately rank expertise of the authors or institutions, and thus give better expertise recommendations to the user of the expert locator system.

Claims 21-29

Mattox does not expressly teach accessing a database of documents which includes the specific commercially available document databases: Medlars (claim 21), Westlaw (claim 22), Lexis-Nexus (claim 23), Dialog (claim 24), Medlex (claim 25), the Science Citation Index (claim 26), GenBank (claim 27), the Internet (claim 28) or a subset of the Internet (claim 29).

However, Mattox teaches accessing a database of documents over a network, the documents containing expertise on a subject area. Mattox also teaches an extension of ExpertFinder accessing expertise in a subject area database over the Internet to supplement the information on expertise available to the user (e.g. ChemDex, see page 6 under section "KEAN").

It would have been obvious to one of ordinary skill at the time of the invention that any database with documents suitable for scanning, search, and scoring of documents pertaining a subject area would be a useful source of expertise locator information. The claimed commercially-available subject area databases are well known to contain such information, thus accessing and scoring documents from such databases would have provided greater resources to the user for locating expertise in a subject area.

Claims 30-33 recite a system comprising a server configured to substantially perform the methods of claims 1-29, and are similarly rejected for reasons given above for the respective claim and claim elements.

Claims 34-38 recite methods substantially as in the methods of claims 1-29, and are similarly rejected for reasons given above for the respective claim and claim elements.

9. Claims 39, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattox et al ("Enterprise expert and knowledge discovery", 8<sup>th</sup> International Conference on Human-Computer Engineering, 1999, herein "Mattox") in view of Streeter and Lochbaum ("An Expert/Expert-Locating System Based on Automatic Representation of Semantic Structures," Bellcore, 1988) and further in view of Lauffer (US Pat. 6,223,165 filed March, 1999), all as applied to claim 34 above, and further in view of Consumers Checkbook ([www.checkbook.org](http://www.checkbook.org): Top Doctors database, Specialists Nationwide, from web.archive.org: archival date: August, 2000).

Claim 39 recites methods substantially as in the methods of claims 1-29, as addresses above for the respective claim and claim elements; however, Mattox does not teach or suggest *the hierarchical displaying...* of claim 39.

As in claim 5 above, Lauffer expressly discloses displaying scores and rankings of expertise by geographic area (see column 6 from line 30 to end of column 7) for a user to locate nearby expertise, including graphically displaying expertise, scoring and ranking in a variety of graphical displays based on the expert entities *city, state, and/or country of origin* (see Lauffer, column 7, line 66). Consumers Checkbook expressly teaches displaying such information in hierarchical format, including scored and ranked expert display based on the expert entities city, state and or metropolitan statistical area.

It would have been obvious to one of ordinary skill in the art at the time of the invention to hierarchically display the expertise, and the scoring and ranking of expertise as taught or suggested by Mattox, the scoring and ranking by geographic areas as in

Lauffer, using a hierarchical displaying format as in Consumers' Checkbook, as this would have provided the user an efficient user interface for selection of a geographic region nearby to their own location and to find the best expertise for the subject area sought.

Claims 40-42 recite elements arranging the displaying of the scored and ranked entities of claim 34, including displaying a ranking of entities based on the scores of group of entities and hierarchical levels based on cites in a state and a second level of institutions in corresponding cites and states. For reasons given above with respect to *the hierarchical displaying* of claim 39, the claims are similarly rejected.

### **Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Koenig (US Pat. 7,167,855) and Walker et al.(US Pat. 5,862,223) teach automated methods and an Internet-based expertise locator system finding expert consultants to facilitate and support expert-based commerce.

McDonald et al. ("Just talk to me: a field study of expertise location," 1998) review state-of-the-art in expertise location prior to the time of invention.

Art Unit: 3623

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.




Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Robertson whose telephone number is 571-272-8220. The examiner can normally be reached on 8:15am to 5:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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